Filed by BioSante Pharmaceuticals, Inc. Pursuant to Rule 425 under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-6 under the Securities Exchange Act of 1934 Subject Company: Cell Genesys, Inc. Commission File No.: 333-161181

The following is a joint press release issued by BioSante Pharmaceuticals, Inc. and Cell Genesys, Inc. on September 30, 2009:

Forward-Looking Statements

This communication contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 about BioSante and Cell Genesys. Such statements include, but are not limited to, statements about the proposed transaction and its potential benefits to the BioSante and Cell Genesys stockholders, the expected timing of the completion of the transaction, the combined company's plans, objectives, expectations and intentions with respect to future operations and products and other statements that are not historical in nature, particularly those that utilize terminology such as "will," "potential," "could," "can," "believe," "intends," "continue," "plans," "expects," "estimates" or comparable terminology. Forward-looking statements are based on current expectations and assumptions, and entail various known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed in such forward-looking statements. Important factors known to BioSante and Cell Genesys that could cause actual results to differ materially from those expressed in such forward-looking statements include general business and economic conditions; the failure of the BioSante or Cell Genesys stockholders to approve the transaction or the failure of either party to meet any of the other conditions to the closing of the transaction; the failure to realize the anticipated benefits from the transaction or delay in realization thereof; the businesses of BioSante and Cell Genesys may not be combined successfully, or such combination may take longer, be more difficult, time-consuming or costly to accomplish than expected; and operating costs and business disruption following the merger, including adverse effects on employee retention and on business relationships with third parties, BioSante's need for and ability to obtain additional financing, the difficulty of developing pharmaceutical products, obtaining regulatory and other approvals and achieving market acceptance; the marketing success of BioSante's licensees or sublicensees and the success of clinical testing. Additional factors that could cause BioSante's and Cell Genesys's results to differ materially from those described in the forward-looking statements can be found in BioSante's recent registration statement on Form S-4 and BioSante's and Cell Genesys's most recent annual reports on Form 10-K and subsequent quarterly reports on Form 10-Q and other filings with the Securities and Exchange Commission, which are filed with the SEC and available at the SEC's web site at www.sec.gov and which discussions also are incorporated herein by reference. The information set forth herein speaks only as of the date hereof, and BioSante and Cell Genesys disclaim any intention and do not assume any obligation to update or revise any forward looking statement, whether as a result of new information, future events or otherwise.

Important Additional Information for Investors and Stockholders

This communication is being made in respect of the proposed business combination involving BioSante and Cell Genesys. In connection with the proposed transaction, BioSante has filed with the SEC, a registration statement on Form S-4, containing a joint proxy statement/prospectus and other relevant materials. The final joint proxy statement/prospectus has been mailed to the stockholders of record as of August 21, 2009, of BioSante and Cell Genesys. INVESTORS AND SECURITY HOLDERS OF BIOSANTE AND CELL GENESYS ARE URGED TO READ THE JOINT PROXY STATEMENT/PROSPECTUS (INCLUDING ANY AMENDMENTS OR SUPPLEMENTS) AND OTHER DOCUMENTS FILED WITH THE SEC CAREFULLY IN THEIR ENTIRETY BECAUSE THEY CONTAIN IMPORTANT INFORMATION ABOUT BIOSANTE, CELL GENESYS AND THE PROPOSED TRANSACTION.

Investors and security holders are be able to obtain free copies of the registration statement and the joint proxy statement/prospectus and other documents filed with the SEC by BioSante and Cell Genesys at the SEC's web site at www.sec.gov. Free copies of the registration statement and the joint proxy statement/prospectus and other documents filed with the SEC can also be obtained by directing a request to BioSante, Attention: Investor Relations, telephone: (847) 478-0500 or to Cell Genesys, Attention: Investor Relations, telephone (650) 266-3200. In addition, investors and security holders may access copies of the documents filed with the SEC by BioSante on BioSante's website at www.biosantepharma.com, and investors and security holders may access copies of the documents filed with the SEC by Cell Genesys's website at www.cellgenesys.com.

BioSante, Cell Genesys and their respective directors and executive officers and other persons may be deemed to be participants in the solicitation of proxies from the stockholders of BioSante and Cell Genesys in respect of the proposed transaction. Information regarding BioSante's directors and executive officers is available in its annual report on Form 10-K

for the year ended December 31, 2008, filed with the SEC on March 16, 2009 and the proxy statement for BioSante's 2009 annual meeting of stockholders, filed with the SEC on April 27, 2009.

Information regarding Cell Genesys's directors and executive officers is available in its annual report on Form 10-K for the year ended December 31, 2008, filed with the SEC on March 9, 2009 and the proxy statement for Cell Genesys's 2009 annual meeting of stockholders, filed with the SEC on March 31, 2009. Investors and stockholders can obtain more detailed information regarding the direct and indirect interests of BioSante's and Cell Genesys's directors and executive officers in the merger by reading the definitive joint proxy statement/prospectus.



CELL GENESYS 400 Oyster Point Boulevard #525 South San Francisco, CA 94080



111 Barclay Boulevard Lincolnshire, Illinois 60069

FOR IMMEDIATE RELEASE

BioSante Pharmaceuticals and Cell Genesys Announce Approval of Merger by BioSante Stockholders and Adjournment of Cell Genesys Stockholders Meeting Until October 14, 2009

LINCOLNSHIRE, Illinois and SOUTH SAN FRANCISCO, California (September 30, 2009) — BioSante Pharmaceuticals, Inc. (NASDAQ: BPAX) and Cell Genesys, Inc. (NASDAQ: CEGE), today announced that BioSante stockholders have approved the merger between the two companies with BioSante as the surviving company.

Ninety percent (90%) of the Cell Genesys shares voted to date have been voted in favor of the merger proposal. This leaves Cell Genesys approximately five percent of its outstanding shares short of having stockholder approval of the merger. Therefore, Cell Genesys has adjourned its stockholders meeting until October 14, 2009 to provide Cell Genesys stockholders additional time to cast their votes regarding the merger proposal. To date, a total of approximately 49.3 million shares of Cell Genesys have voted in favor of the merger. A majority of the outstanding shares, or 55.2 million shares, of Cell Genesys common stock as of August 21, 2009 must vote in favor of the merger proposal in order for the merger to be approved.

"With such a large percentage of Cell Genesys's stockholders being individual investors, we believe it is appropriate to extend the voting period in order to give as many of these investors as possible a chance to vote," said Stephen A. Sherwin, M.D., chairman and CEO of Cell Genesys. "The votes we have received have been voted overwhelmingly in favor of the merger with BioSante. While we believe most Cell Genesys stockholders recognize the benefits of our proposed merger with BioSante, we are concerned that many of them may not realize how important their individual votes are to moving this merger forward. The Board of Directors of Cell Genesys unanimously approved this merger and we continue to believe strongly that it is very much in the interest of our stockholders from a financial perspective."

"We are pleased and want to thank our stockholders for voting their shares and approving our merger with Cell Genesys," said Stephen M. Simes, president and CEO of BioSante. "We look forward to Cell Genesys getting the remaining votes needed to approve our merger. We are gratified that Cell Genesys's largest stockholder LeRoy Kopp and Kopp Investment Advisors have voted all their shares in favor of the merger. We continue to believe that the merger between our companies is in the best interests of our and Cell Genesys's stockholders."

The Cell Genesys special meeting of stockholders will be reconvened at 9:00 a.m., Pacific Time, on October 14, 2009 at Cell Genesys's corporate offices located at 400 Oyster Point Boulevard, Suite 525, South San Francisco, California 94080. The record date for the stockholders entitled to vote at the reconvened meeting remains August 21, 2009.

Proxy materials in connection with the special meetings were first mailed on August 28, 2009 to stockholders of record of BioSante and Cell Genesys as of August 21, 2009. Under the terms of the merger agreement, if the merger is completed, Cell Genesys stockholders will receive 0.1828 of a share of BioSante common stock for each share of Cell Genesys common stock they hold. Although the BioSante stockholders have approved the merger, the merger remains subject to approval by the stockholders of Cell Genesys, as well as to other customary conditions of closing. If the stockholders of Cell Genesys approve the merger, it is expected that the merger will close as soon as practicable thereafter.

Cell Genesys stockholders are reminded that their vote is important. A failure to vote has the same effect as a vote against the adoption of the merger agreement. Any Cell Genesys stockholder who has not yet voted is urged to vote FOR the adoption of the merger agreement and the transaction contemplated thereby. Cell Genesys stockholders may vote their shares by telephone, by mail or by Internet in accordance with the instructions set forth in their proxy materials, and are advised that if they have any questions or need any assistance in the last-minute voting of their shares, they should contact Cell Genesys's proxy solicitor, Innisfree M&A Incorporated, toll-free at 1-888-750-5834.

Cell Genesys stockholders who have previously given a proxy or instructions to brokers do not need to re-cast their votes.

About BioSante Pharmaceuticals, Inc.

BioSante is a specialty pharmaceutical company focused on developing products for female sexual health, menopause, contraception and male hypogonadism. BioSante's lead products include LibiGel® (transdermal testosterone gel) in Phase III clinical development by BioSante under a U.S. Food and Drug Administration (FDA) SPA (Special Protocol Assessment) for the treatment of female sexual dysfunction (FSD), and ElestrinTM (estradiol gel) developed through FDA approval by BioSante, indicated for the treatment of moderate-to-severe vasomotor symptoms associated with menopause, currently marketed in the U.S. Also in development are Bio-T-GelTM, a testosterone gel for male hypogonadism, and an oral contraceptive in Phase II clinical development using BioSante patented technology. The current market in the U.S. for estrogen and testosterone products is approximately \$2.5 billion and for oral contraceptives approximately \$3 billion. The company also is developing its calcium phosphate technology (CaP) for aesthetic medicine (BioLookTM), as a vaccine adjuvant, including for an H1N1 (swine flu) vaccine, and drug delivery. Additional information is available online at: www.biosantepharma.com.

About Cell Genesys, Inc.

Cell Genesys is headquartered in South San Francisco, California. For additional information, please visit Cell Genesys' website at www.cellgenesys.com.

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any of the other conditions to the closing of the transaction; the failure to realize the anticipated benefits from the transaction or delay in realization thereof; the businesses of BioSante and Cell

Genesys may not be combined successfully, or such combination may take longer, be more difficult, time-consuming or costly to accomplish than expected; and operating costs and business disruption following the merger, including adverse effects on employee retention and on business relationships with third parties, BioSante's need for and ability to obtain additional financing, the difficulty of developing pharmaceutical products, obtaining regulatory and other approvals and achieving market acceptance; the marketing success of BioSante's licensees or sublicensees and the success of clinical testing. Additional factors that could cause BioSante's and Cell Genesys's results to differ materially from those described in the forward-looking statements can be found in BioSante's registration statement on Form S-4 and BioSante's and Cell Genesys's most recent annual reports on Form 10-K and subsequent quarterly reports on Form 10-Q and other filings with the Securities and Exchange Commission, which are filed with the SEC and available at the SEC's web site at www.sec.gov and which discussions also are incorporated herein by reference. The information set forth herein speaks only as of the date hereof, and BioSante and Cell Genesys disclaim any intention and do not assume any obligation to update or revise any forward looking statement, whether as a result of new information, future events or otherwise.

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For stockholders of record that require an additional copy of the prospectus and proxy Please contact: Computershare Trust Company, NA PO box 43078 Providence Rhode Island 02940-3078 (781) 575-2879

For more information about BioSante, please contact: McKinney/Chicago Alan Zachary (312) 944-6784 ext. 316; azachary@mckinneychicago.com

For more information about Cell Genesys, please contact: Investor Relations Victoria Soares (650) 322-3200